



THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্তৃত্বৰ দ্বাৰা প্ৰকাশিত

PUBLISHED BY THE AUTHORITY

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No. 497 Dispur, Tuesday, 31st October, 2023, 9th Kartika, 1945 (S. E.)

GOVERNMENT OF ASSAM

ORDERS BY THE GOVERNOR

DEPARTMENT OF HOUSING AND URBAN AFFAIRS

NOTIFICATION

The 24th July, 2023

eCF No. 342443/2023/57.- In exercise of the powers conferred by the Sub- Section (2) and (3) of Section 10 of the Assam Town & Country Planning Act, 1959 (as amended) read with Rule 6 of the Assam Town and Country Planning (Publication of Master Plan and Zoning Regulation) Rules, 1962, the Governor of Assam is pleased to publish the following notice regarding the publication of the Final Master plan for Narayanpur.

NOTICE FOR PUBLICATION OF THE FINAL MASTER PLAN FOR NARAYANPUR

1. It is notified that the Final Master plan for Narayanpur is prepared by the Directorate of Town & Country Planning, Government of Assam and adopted by the State Government under Sub Section (2) and (3) of Section 10 of the Assam Town and Country Planning Act, 1959 (as amended) read with Section 6 of the Assam Town and Country Planning (Amendment) Rule, 1962 for the area described in the schedule below, is hereby published.
2. The Final Master plan with all relevant papers and maps may be inspected free of cost during the office hours at the office of the Director, Town & Country Planning, Dispur, Guwahati-6, Deputy Director, Town & Country Planning, District Office- North Lakhimpur, office of the Chairman, Narayanpur Municipal Board and Narayanpur revenue Circle office. Copies of the Final Master Plan is available in the office of the Director, Town & Country Planning, Dispur, Guwahati-6 and Deputy Director, Town & Country Planning, District Office- North Lakimpur for sale on payment.

SCHEDULE**Schedule of Narayanpur Master Plan Area :**

(A) District	:	Lakimpur
Sub-Division	:	Lahimpur
Final Master Plan Area	:	28.43 Sq. Km/2843 hectares
Municipal Area	:	7.38 Sq. Km
Population	:	10105 (as per census 2011)

(B) Revenue area included in the Narayanpur Master Plan is as Follows :-

1. Narayanpur Municipal Area (7.38 Sq. Km)
2. Revenue Villages.

Mouza	Villages
Narayanpur	Panbari
	Mazgaon
	Sakrahi Gaon Part-I
	Sakrahi Gaon Part-II
	Bengena-ati Khat
	Saukuchi Goan
	Narayanpur Gaon
	Dongia Gaon
	1 No. Harmoti Part-I
	1 No. Harmoti-II
	Jalbharla Gaon
	Badulahati
Nang Kherajkhata	Borkhamti Gaon
	Makuwari Gaon
	No. 1 Notgaon

(C) DESCRIPTION OF THE BOUNDARIES :-

- North :- 3 No. Tati Bahar Gaon, Jorabari Gaon, Kina Pather Gaon, Bor Chapori Gaon, Choudhya Puniya Gaon.
- South :- 2 No. Harmoti Gaon, Duliya Gaon, Jaluk-Kota Gaon, Na-Pamua Gaon.
- East :- Bor Deuri Gaon, 1 No. Tenga Pathar Gaon, Kamarbari Gaon, Samaguri Gaon.
- West :- 2 No. Not Gaon, Bhutar-Doloni Gaon, Charai Doloni Gaon, Tati Bahar Gaon, 2 No. Tati Bahar Gaon.

KAVITHA PADMANABHAN,

Commissioner & Secretary to the Government of Assam,
Department of Housing and Urban Affairs.

It is the birthplace of several Baishnava gurus like Madhavdev, Haridev, Anirudhadev, Badala Padma Atta etc. Belaguri Sattrā, Badala Sattrā, Phulani Thaan, Bishnubalikuchi, Dahgharia Sattrā, Budha Bapuchang, Maghnowa Dol, Dongianoī, Gohaikama Ali, Radhapukhuri, Burhaburhi Pukhuri, Rangati Pukhuri, Naga Pukhuri, Pichala Nadi, Tulugonijaan are some of the important historical places situated at Narayanpur.



1.4 Climate

The climate of the area is sub-tropical and humid and is characterized by high rainfall. The absence of dry hot summer is the characteristic feature of the climate of Narayanpur. The prevalence of cold water, cold and pleasant spring is enjoyable. High humid temperature and exorbitant rains during summer, like the other districts of Assam, are experienced. The temperature raises high during South-West monsoon season which generally starts in the month of June and last till the beginning of the month of October every year. The cold season starts from the early part of November till late February. The winters are generally Cold and foggy. The climatic feature of February March is usually dry and windy. April to May is a period of thunderstorm and heavy cyclonic rainfall. Rainfall occurs almost throughout the year. The annual rainfalls are 3,268mm and mean relative humidity is 81 percent. The planning area receives South-West monsoon arrives in the beginning of June every year.

1.5 Topography

Topography of Narayanpur Town is flat with certain low laying areas and climatic conditions are such as not too hot or not too cold. The maximum temperature is 32°C (Max) and 10°C (Min) in the month of August and December respectively. Average MSL of Narayanpur Master Plan area is 87.5 m.

1.6 Soil Condition:-

The soils of the Town can broadly be classified into the following groups:

1. Red Loamy soils: This soil type develops in the hill slopes under high rainfall condition. This soil is characterized by low nitrogen, low phosphate and medium to high potash. PH is acidic.
2. New Alluvial Soils: The new alluvial soils are found in the flood plain area and are subjected to occasional floods and consequently receive considerable silt deposit after the flood recedes. These are yellow to

yellowish grey in colour and are admixtures of sand, silt and clay in varying proportions. Mineral weathering and geo-chemical changes are nominal. But incipient changes in the top layer have been noticed due to biological activity. Soil PH is feebly alkaline and moderately rich in plant nutrient.

3. Older Alluvial Soil: It develops at higher levels and practically unaltered alluvium representing a broad spectrum of sand, silt and humus rich clay depending on landform. The soils are comparatively more acidic than the newer alluvial soil and hence more crop sensitive.

The soils of the North Lakhimpur district is classified by NBSS and ICAR Nagpur are: Udalfs Orchapts-Acquents, Fluvent-Aquepts, Aquepts-Aqualfs-Fluvent. 4.0 Ground Water Scenario 4.1 Hydrogeology The district can be divided into two distinct hydrogeological units, viz., semiconsolidated and unconsolidated.

1.7 Settlement Pattern

The rural settlements are comparatively small and simple agglomeration at favourable and convenient site, primarily influenced by environmental factors and later on by socio-economic development of human groups. There are two factors, physical and cultural, responsible for various settlement types in rural areas. They are also known as agglomerating factors or degglomerating factors. In physical factors relief, fertility of soil, amount of rainfall, dry land and defense are included, while in cultural factors landuse, land tenure, cropping pattern, clan and caste system, social relationships and means of transportation are included. The compact farm villages are common features of great fertile river valley plains. Similarly in flood affected area, few elevated sites are also having compact settlements. As Narayanpur is Class IV town and rural based and flood affected area, mostly linear settlement is found. In some places compact settlement is also found.

1.8 Rural – Urban Scenario:-

Settlements in India are very old and ongoing process of cultural expression and linked to civilization. With advent of industrialization and modern amenities, growth of settlements have become faster and steadily kept its pace though different phases of economic development. However inflow of population for search of economic avenues and better life style has gone up.

Narayanpur Master Plan covers an area of 28.43 sq.km. As per 2011 census, total master plan area populations are 10105 persons. The percentage of rural population is generally low in comparison to urban population within Master Plan area.

TABLE 1
Urban & Rural Area Population

Name of the Master Plan Area	Category of Area	Area In sq. Km	Population In 2011
Narayanpur Master Plan	Urban	7.38sq.km	6001
	Rural	21.05 sq.km	4104
Total		28.43 sq. km	10105

Source: Census2011

1.9 Physical growth and expansion of town:-

Physical growth and expansion of Narayanpur town is mainly slow. The evils of unplanned growth of our towns have caused enormous problems such as shortage of living accommodation, traffic congestion, lack of sanitation and other community facilities and amenities. The growth of population and the potentiality of Narayanpur town are slow due to lack of big industries and commercially weak.

1.10 Need for the Master Plan:-

Master Plan is the first step towards setting up a long-term Vision for realising the true social, economic and environmental potential of any development. Once the Vision is in place one could narrow down the feasibility, the phasing, the style and aesthetic of the project etc. A Master Plan in India typically covers a time horizon of about 20 years, presenting a road map from the present state of the city to its ideal end-state with spatial details in the terminal year.

The prime function of Master Plan for Urban Areas under The Assam Town & Country Planning Act, 1959 (as amended) are to conserve and promote the public health, safety and general welfare of the people living therein. Master Plan is a legal document for the development of urban area prepared to a specific time period. The validity of a Master Plan is for a specific period and after expiry of the period it needs revision and modifications.

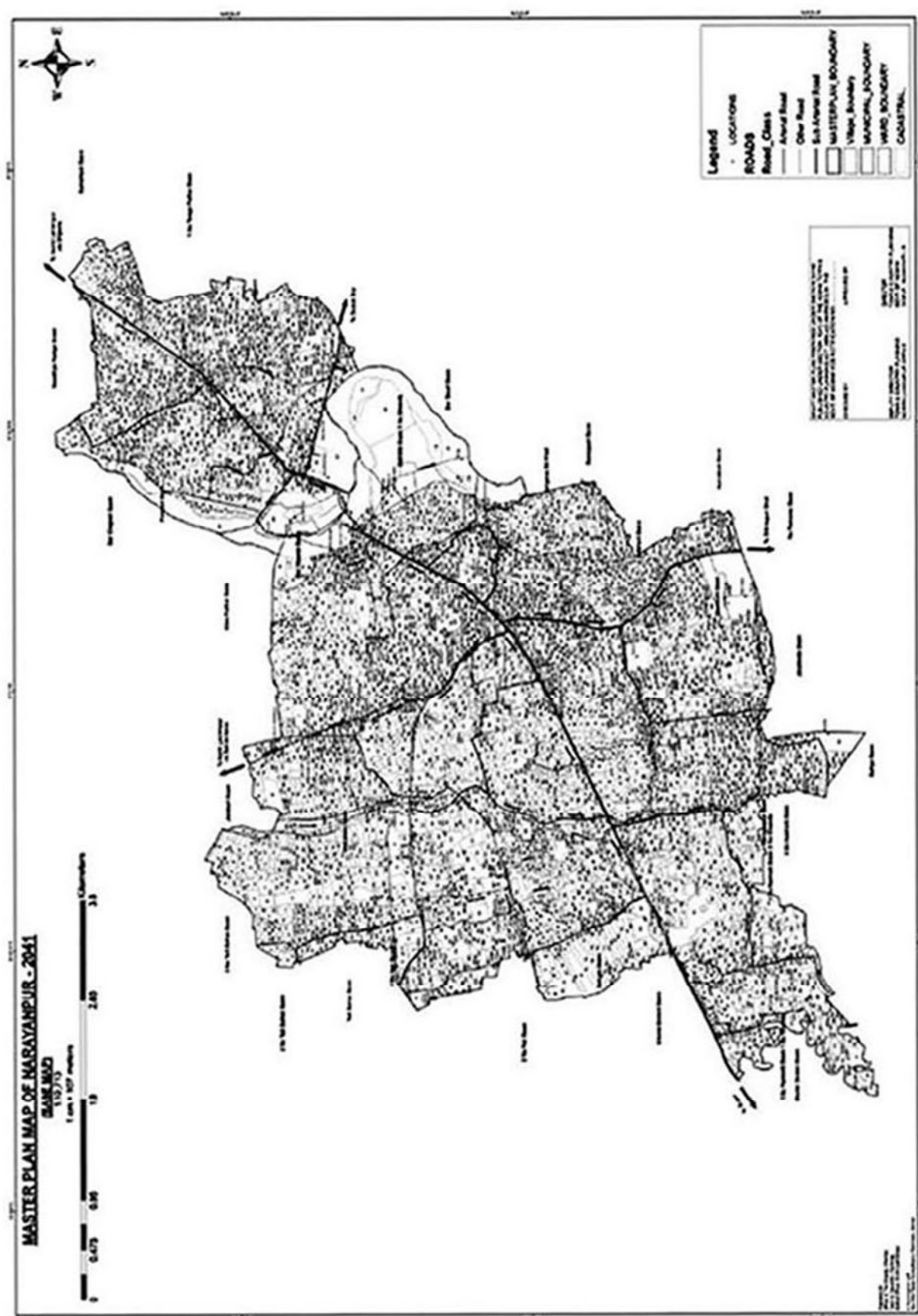
Master plan has innumerable benefits to both the investors and the users. It provides a road map for all future development decisions on a project. The success rate of master planned projects is much higher than unplanned ones.

It is highly desirable at this point that the citizens of Narayanpur should clearly understand the need for the Master Plan because a Master Plan is the city/town's long range plan and is important as it affects things we do every day and how we will do then in the future. Master Plan guide city/towns decisions about important issues like what economic development strategy the city town should take; where certain types of business should the town try to attract; how much parking should be provided in neighbourhood; what improvements should be made to parks and recreations centres; how to protect our natural resources; why certain areas are designed as historic places. So when we wonder why a building is allowed to be located somewhere, why certain streets are one-way streets, why a park has been built in our neighborhood; a good place to start looking is the Master plan. As such the most desired results could be positive civic interest and greater confidence which will create a conducive environment and our descendants will profit by our forethought or suffer from our negligence. What better work can we achieve than make their path easier, their homes more intimate, their public buildings more attractive and accommodating.

The evils of unplanned growth of our towns have caused enormous problems such as shortage of living accommodation, traffic congestion, lack of sanitation and other community facilities and amenities. The growth of population and the potentiality of Narayanpur town is industrially and commercially slow, in the near future the state Government to realize the importance of proper planned growth of the town and the preparation of the Master Plan for this purpose.

In order to translate the suggested developments for Narayanpur into action, it would be necessary to follow this Master plan which is designed to regulate the future growth and to affect a uniform community. In preparing the Master Plan for Narayanpur, various surveys such as land-use, socio-economic etc. were carried out to understand the existing scenario of the town and to suggest the line of actions to be adopted.

Figure 1.
Base Map of Narayanpur



Chapter - 2

DEMOGRAPHY

2.1 Introduction

People are the ultimate beneficiaries of a master plan. For realistic plan preparation, it is necessary to understand nature of population for which plan is being prepared. Complete understanding of strengths, opportunities, weaknesses, and challenges of human resources will guide the plan preparation process. Demography is a study related to socio-economic aspects of population. Understanding Demography paves the way to achieve optimal utilization and development of human resources. In this chapter, trends and pattern of population growth, distribution of population, literacy rate, occupational structure, educational level, sex ratio, migration, work force participation etc, have been discussed. Later, remarks on existing situation of demography in Narayanpur Planning area are made.

2.2 Household density and size

According to 2011 census report, there is 2186 number of household in Narayanpur Master Plan area .The number of household in 2011 for NarayanpurMaster Plan Area is given below.

TABLE NO – 2

Number of Household in Narayanpur Master plan Area

Area	No. of Household
MakuwariGaon	187
BorkhamtiGaon	69
1 No Notgaon	144
Dongia	111
BadulahatiGaon	357
SakrahiGaon 2No Khanda	58
SakrahiGaon 1 No Khanda	
BengenaAtiKhat	36
Jalbharigaon	106
Saukuchigaon	301
NarayanpurGaon	94
1No. HarmotiGaon 2 No Khanda	332
1 No. HarmotiGaon 1 No Khanda	
Panbari Gaon	285
Majgaon	106

Source: Lakhimpur Census Handbook 2011

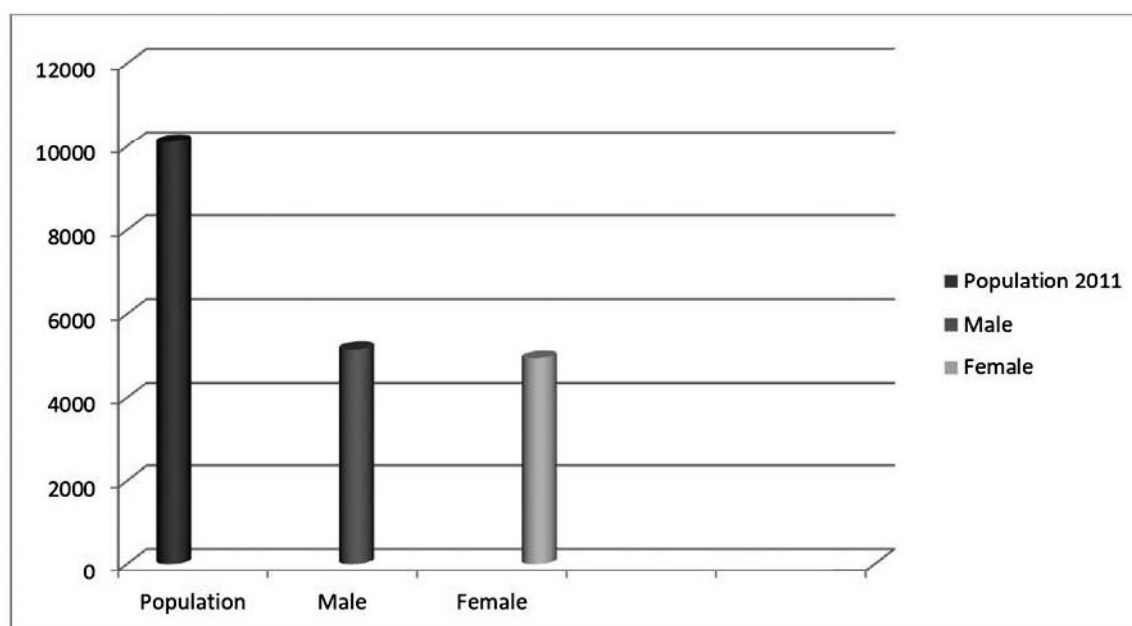
2.3 Population Distribution:-

According to the 2011 census Narayanpur population figure has reached to 10105 Nos., among them 5163 are male and 4942 are female. The following table shows the population distribution within Narayanpur Master Plan Area.

TABLE NO – 3**Population Distribution in Narayanpur Master Plan Area**

Narayanpur Villages	Population 2011	Male	Female
Makuwari Gaon	814	431	383
Barkhamti Gaon	303	151	152
1No Notgaon	608	301	307
Dongiapar	507	259	248
Badulhati Gaon	1465	783	682
Sakrahi Gaon 2No Khanda	126	60	66
Bengena AtiKhat	179	84	95
Jalbharla Gaon	488	240	248
Sakuchi Gaon	1399	692	707
Narayanpur Gaon	418	229	189
1No Harmoti Gaon 2No Khanda	704	375	329
1No Harmoti Gaon 1No Khanda	758	390	368
Sakrahi Gaon 1No Khanda	189	91	98
Panbariya Gaon	1388	693	695
Majgaon	759	384	375
Total Population	10105	5163	4942

Source :Census of India 2011

Figure:-1**Male and Female population of Narayanpur Master Plan Area in 2011**

Source: Census 2011

2.4 Population Growth rate

The purpose to provide facilities and services in community is to meet the physical, economic and social needs of the people. It is a study and understanding of the growth, distribution, composition and other characteristics of the population and trend are therefore the basic requirements for the wider range planning programmes. The objective of the Master Plan for Narayanpur is to cater to the various needs emerging from these studies in order to meet the aspirations of its residents for whom the plan is prepared. Narayanpur is revenue/notified Class VI town under Lakhimpur District. Narayanpur Town Committee was notified in the year 2004 comprising of 6 wards. Existing 6 wards were bifurcated into 10 wards in the year 2021.

2.5 Sex Ratio

The Sex Ratio of Narayanpur is 981. Thus for every 1000 men there were 981 females in Narayanpur. Also as per Census 2011, the Child Sex Ratio was 956 which is less than Average Sex Ratio (981) of Narayanpur.

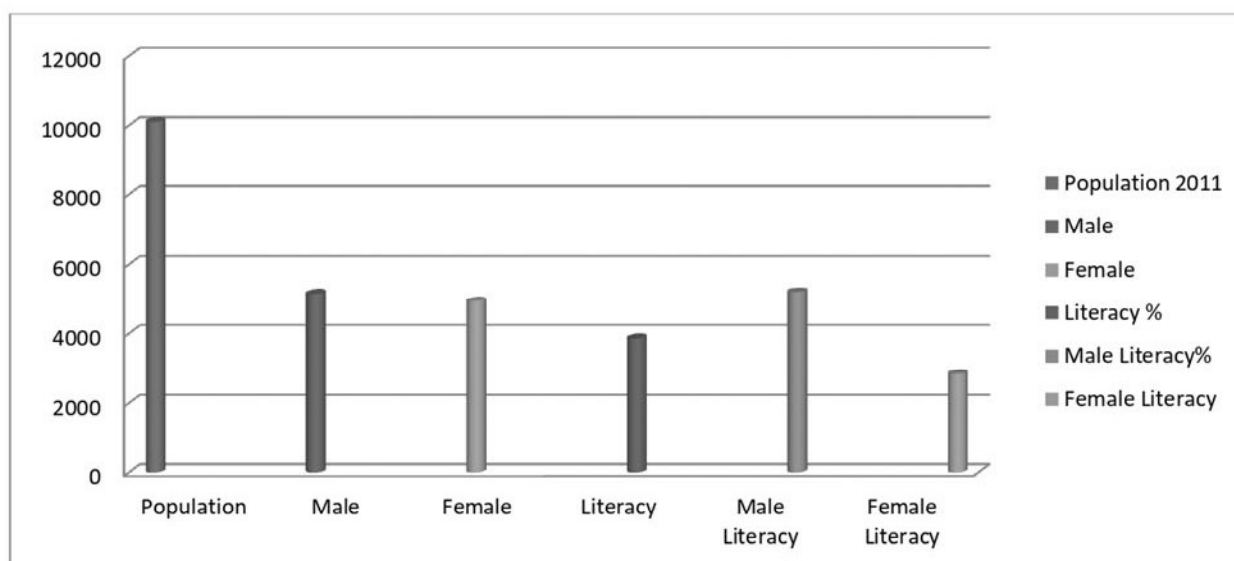
2.6 Literacy

As per Census of India 2011, average literacy rate of Narayanpur in 2011 were 84.58 percent in which, male and female literacy were 90.14 percent and 78.93 percent respectively.

TABLE 4**Village wise Population and Literacy data in Narayanpur Master Plan Area**

Narayanpur Villages	Population 2011	Male	Female	Literacy%	Male Literacy%	Female Literacy%
Makuwari Gaon	814	431	383	88.84%	91.14%	86.25%
Barkhamti Gaon	303	151	152	93.12	97.84	88.32
1 No Notgaon	608	301	307	95.54%	97.49%	93.59%
Dongiapar	507	259	248	89.35%	91.25%	87.45%
Badulahati Gaon	1465	783	682	73.18%	79.26%	66.67%
Sakrahi Gaon 2No Khanda	126	60	66	79.72%	81.80%	77.64%
Bengena AtiKhat	179	84	95	79.22%	85.29%	74.42%
Jalbharla Gaon	488	240	248	70.28%	71.05%	69.54%
Saukuchi gaon	1399	692	707	84.36%	88.76%	80.00%
NarayanpurGaon	418	229	189	93.21%	97.57%	88.85%
1No. Harmoti Gaon 2 No Khanda	704	375	329	79.77%	81.30%	78.24%
1 No. Harmoti Gaon 1 No Khanda	758	390	368	75.49%	77.11%	73.87%
Sakrahi Gaon 1 No Khanda	189	91	98	85.27%	87.30%	83.24%
Panbariya Gaon	1388	693	695	83.80%	85.20%	82.40%
Majgaon	759	384	375	67.52%	78.38%	56.51%
Total Population	10105	5163	4942			

Source: Lakhimpur Census Handbook 2011

Figure:-2**Village wise population and Literacy data in Narayanpur Master Plan Area**

Source:- Primary Survey

Educational levels in the planning area are found to be low. There is a need to increase education levels of the population. Skill development institutions can be developed for making skilled human resources which could act as catalyst to accelerate economic development in the area.

2.7 Population projection:-

Population projection is a forecasting tool that helps to estimate the changes in population size and demographic structure. It is mandatory for the Govt. Policy makers and planners of Assam, in order to determine the future demand for basic human needs such as food, water, education, energy and services and to forecast future demographic characteristics.

The main objective is to provide or undertake activities aimed at achieving population stabilization, sustainable economic growth, social development and environmental protection by 2041.

Population projection is a scientific attempt to keep into the future population scenario, conditioned by making certain assumptions, using data to the past available at that point of time. Assumption's used and their probability of adhering in future forms a critical input in this mathematical effort. Predicting the future course of human fertility and mortality is not easy, especially when looking beyond much further in time. Medical

and health intervention strategies, food production and its equitable availability, climatic variability, socio-cultural setting, economic condition and a host of other factors influence population dynamics, making it a somewhat unpredictable exercise. Therefore much caution must be exercised when either making or using the population projection and the context of various conditions imposed, should not be lost sight of on the basis of past behaviour and the likely future scenario assumed.

The final population projections of Narayanpur Master Plan Area have thus been arrived at with the entire base population of 2011 accounted for as the natural population, by adding to the natural population the increase due to the natural growth plus the increase due to emigrational flow. The following table shows the population projection up to 2041 for Narayanpur Master Plan Area. Projected population of Narayanpur Master Plan Area for 2041 AD will be 16754.

TABLE NO – 5

POPULATION PROJECTION OF NARAYANPUR MASTER PLAN AREA 2011-2041

Year	Projected Population
2011	10105
2021	11960
2031	14155
2041	16754

Source:- T&CP Lakhimpur

Chapter - 3

ECONOMIC BASE AND EMPLOYMENT

3.1 Introduction

Economy is the backbone of any town. Flourishing economy will help to accelerate town's infrastructure development. Objective of a master plan is to facilitate the growth of economy through policy and spatial planning interventions. It involves provision of infrastructural facilities in terms of land allocation and land development as per the standards, policy incentives to promote and safeguard the economy. Thus creating sufficient employment opportunities and increasing standard of living of its citizens is a paramount significance. Narayanpur Planning Area has both urban and rural character. In urban area, workers are mainly engaged in tertiary sector, while in rural areas, agriculture and allied activities are practiced.

3.2 Different Sectors:-

Formal Sector:-

Sector which encompasses all jobs with normal hours and regular wages and are recognized as income sources on which taxes must be paid are known as formal sector. In local terms, organised sector or formal sector in India refers to licensed organisations, that is, those who are registered. Only 6 (six) per cent of India's working population is part of the formal sector the productivity in formal sector is high in comparison to informal sector and also offers higher wages to its employees.

Informal Sector:-

The informal sector is that part of an economy which is neither taxed nor monitored by any form of government. Activities of the informal economy are not included in the GNP. The informal sector makes up a significant portion of the economies in poor state like Assam. The informal sector and or unorganised sector is a major source of employment in the economic fabric of the city.

The informal sector of Narayanpur provides critical economic opportunities for the poor and has been expanding rapidly since the 1990s. The informal sector is largely characterised by several qualities such as Easy Entry, meaning anyone who wishes to join the sector can find some sort of work which will result in cash earnings, a small scale of operations and skills gained outside of a formal education. Most workers in the

informal sector, even those are self-employed or wage workers, do not have access to secure work, benefits, welfare protection or representation. The most prevalent types of work in the informal economy are home based workers and street-vendors which are most common in Narayanpur. In Narayanpur town there are also vegetable markets at the junction point which not only fulfil the demand for Narayanpur and its suburbs but also supply the essential commodities to the people of border areas of Arunachal Pradesh.

3.3 Occupational Pattern:-

Occupational structure depicts the characteristics of employment for livelihood of the people living in a particular planning area. The engagement of people in agriculture, trade, commerce, industry and white-collar jobs etc. is known as the occupation and employment character.. Expansion of micro, cottage and service industry in the town and as well as in the out skirts of the town also creates employment opportunities to many people. In view of the above, the question of livelihood can be separated on the following heads as mentioned below:-

- (a) Engagement in agricultural activities.
- (b) Engagement in micro and household industries
- (c) Serving as Govt. employee & private employee.

Table 6
Showing People Engaged in Different Services

Area Name	Permanent	Semi – Permanent	Temporary		
			Total	Serviceable	Non - Serviceable
Lakhimpur	10,658	10,162	624	28	596
Narayanpur (Urban)	3524	3502	154	11	146

Source: - Census 2011

3.4 Working Population and Non –Working Population

Occupational structure of planning area as per census 2011 is shown in Table 4 and 5. In Narayanpur Town Committee out of total population, 2,470 were engaged in work activities. 79.8percent of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 20.2 percent were involved in

Marginal activity providing livelihood for less than 6 months. Of 2,470 workers engaged in Main Work, 440 were cultivators (owner or co-owner) while 70 were Agricultural labourers.

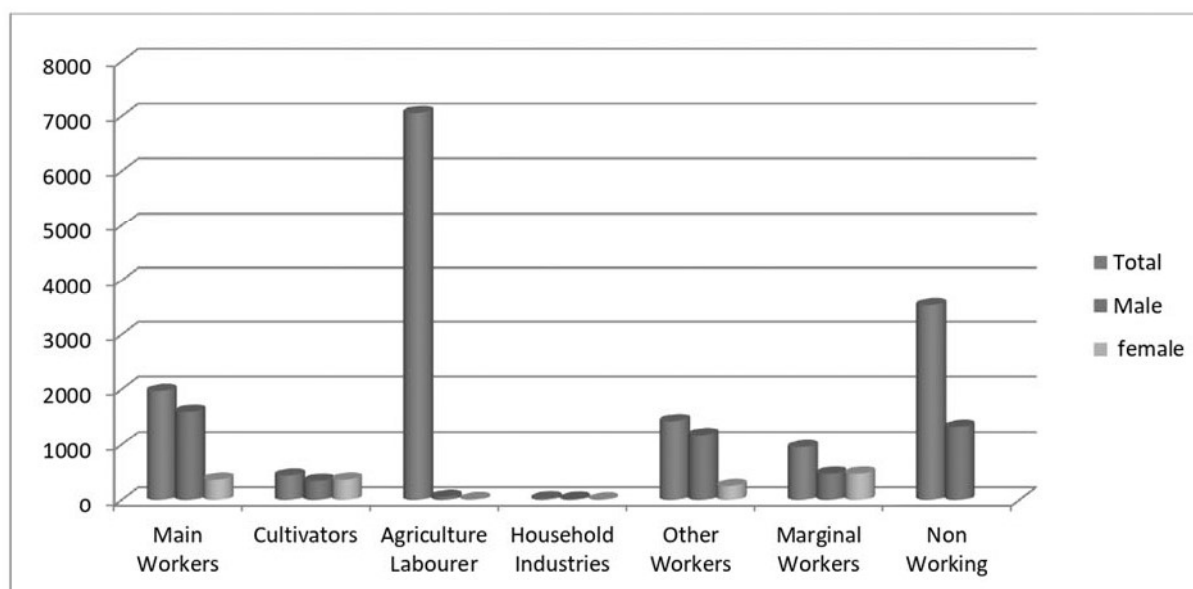
TABLE NO – 7
Workers and Non-Workers in Narayanpur Master Plan Area

	Total	Male	Female
Main Workers	1970	1602	368
Cultivators	440	345	95
Agriculture Labourer	70	57	13
Household Industries	29	21	8
Other Workers	1431	1179	252
Marginal Workers	500	157	343
Non Working	3531	1327	2204

Source: Lakhimpur Census Handbook 2011

Figure:-3

Workers and Non – Workers In Narayanpur Master Plan Area



Source:- Census 2011

It is very alarming to note the decreasing trends in primary sector workforce. Majority of workforce is engaged as unskilled labourers in sector. Also, percentage of workforce engaged in secondary household industry in urban area has dropped suddenly. There is need to develop secondary and tertiary sectors in urban area and rejuvenate agriculture and allied activities in rural area.

Chapter – 4

HOUSING

4.1 Introduction

Housing is the basic need of the civilized living. Despite various efforts to solve the housing problem with various policies, there is a huge gap between the supply and the demand for the housing in Assam in general and Narayanpur town in particular. A section of population in Narayanpur either have no place to live in or living under highly unhygienic, inhuman condition and deprivations. Lack of privacy, absence of minimum basic amenities, use of substandard building materials and unhygienic surroundings dominates the scene of settlements. In Narayanpur while the housing problem in the rural areas, by and large is qualitative in nature and the problem in the urban areas is largely quantitative. The uncontrolled growth of population in urban areas due to migration and other factors have created a high magnitude of housing and infrastructure problem. Due to migration of rural population to the town, available vacant spaces in the urban areas are slowly being converted to unplanned, unhygienic built up area. Moreover, cost of land in the urban area is also increasing. People in the low and middle income group even find it difficult to acquire the land at the present prevailing cost. Housing need has been assessed in intervals of 5 years for the planning period. In the end, opportunities, challenges in providing housing and actions to be taken have been elaborated.

4.2 Housing Condition:-

It denotes the structural stability of a dwelling unit. As per Census of India, “Good” means house requires no repairs, “Livable” means house requires minor repairs, while “Dilapidated” means house requires major repairs or reconstruction or houses which have decayed or ruined and are far from being in conditions that could be restored or repaired.

4.3 Housing Requirement: -

Housing needs will increase as per increase of population size of the area and occupancy rate or household size. Assuming average household size is 4.7 and acceptable housing stock is likely to shrink by 1% annually, projected housing requirement of Master Plan Area is estimated as below –

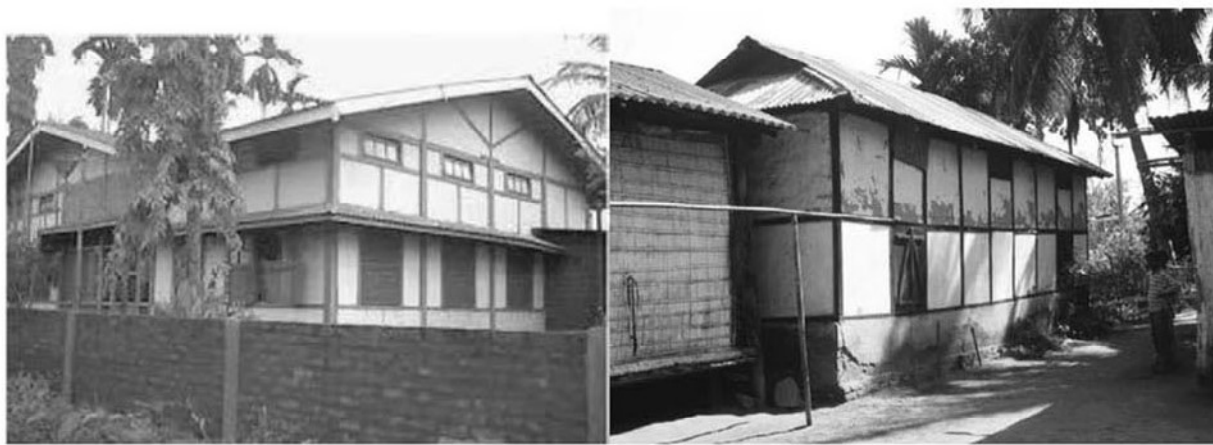
Table 8: Requirement of Housing Unit

Sl. No.	Items	Requirement of Housing Unit	
		2031	2041
1	Population	14155	16754
2	Increase in population	2195	2599
3	As. Household Size	4.7	4.6
4	Requirement of Housing Unit Including Backlog	467	565
5	Replacement Requirement	5	6
6	Total Requirement of Housing Unit	472	571

Source: Census Handbook 2011

The housing needs may be fulfilled through different govt. Schemes like PMAY (HFA) and also different schemes of different financial institute, banks etc. Narayanpur Master Plan area has no slum settlement.

Figure:- 4.1 Different styles of houses in Narayanpur



Source: Primary Survey, TnCp NLP

Figure 4.1 shows that most of the houses have used burnt bricks and bomboo, mud, wood, etc to construct walls. As most of the houses have average building height is low with most structures having ground level ground plus one level, and burnt bricks or bamboos, mud walls can sustain load and the cost of construction is also low. Cement is primarily used as floor material in urban areas while mud is predominantly used in rural areas as floor material.

Table 9

Building Materials used in Narayanpur Planning Area

Building Material	
<u>Roof Material</u>	Metal and tin Sheet, Thatch, bamboo, wood and mud, concrete, other material
<u>Wall Material</u>	Grass, thatch and bamboo, concrete, any other materials
<u>Floor Material</u>	Mud, wood and bamboo, cement, mosaic tiles, any other materials.

Source:- Census of India 2011

Roofs made of wood, bamboo are more common in rural areas while urban areas have roofs made up of concrete. Rural areas have higher percent of houses built with mud and bamboo wall, while urban areas have walls made up of burnt bricks. Similarly, floor materials are used also varies in urban and rural area. Flooring of mud is dominant in rural area while cement is used as flooring material in urban areas. The rural areas majorly have kutchha houses and urban areas have pucca houses.

Chapter 5

TRANSPORTATION

5.1 Introduction

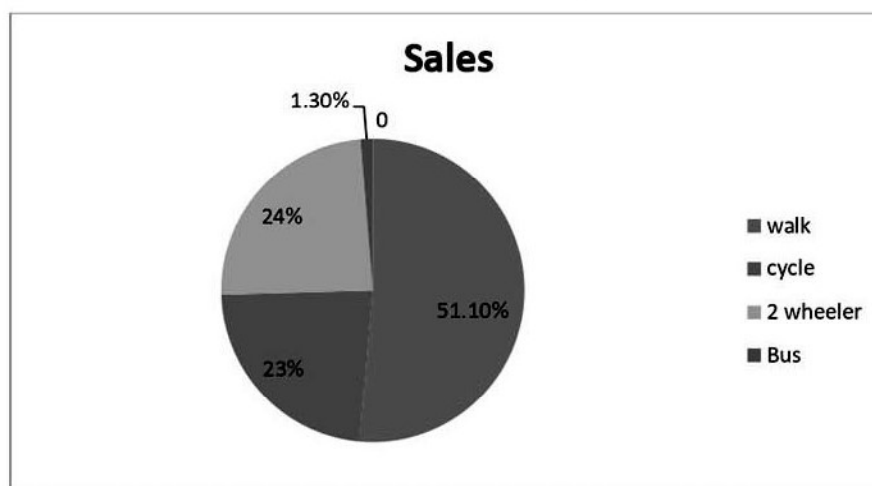
Transportation enhances connectivity, which enables access to jobs, services, livelihoods, and health and education services. Transportation directly influences quality of life in a town. It also facilitates development of an area by enhancing its creativity to potential resources. Neglect in transportation infrastructure has severe consequences as accidents leading to damage and even fatalities could take place.

Inadequacy of transportation facilities is also one of the major hindrances for planned development. Though Narayanpur town is well connected with roads with surrounding major towns & villages, hence, there is scope for its development. Early accessibility and rapid movement of goods & people are the main criteria for proposed development of transportation system of master plan area,

5.2 Travel Characteristics: -

Based on primary survey by T&CP, mode share of the town is shown in figure 5.1. Significant 51 percent of commuters walk. Pedestrian infrastructure in the town remains very poor. Additionally, 23 percent of commuters use bicycle as their primary mode and two wheelers is used as the primary mode by 24 percent of commuters.

Figure 5.1 Mode shares of vehicles in Narayanpur Planning Area, 2021



N.H – 15 passes through the master plan area connect it to all, other parts of Assam, Arunachal Pradesh, & other parts of India. Further, Narayanpur is connected with its nearest town Bihpuria by State Highway.

A Bye – Pass from nearby Madhabpur Tiniali via Mohani Tatibahar Tiniali to N.H-15 near Beleguri Satra Road towards Banderdewa is proposed for ease of movement of traffic and free the town from traffic congestion in future. Considering the growth trends of the town, alternate route for bye-pass is also suggested from Dongia –Pichola through Dongia Gaon, 1 No.Nat Gaon & Makowari Gaon crossing through Tatibahar road upto FCI godown besides N.H.-15 towards Banderdewa for ease of traffic movement without disturbing urban commuters.

5.3 Circulation Plan:-

The proposed circulation network system within the planning area is divided into following categories

Table 10

Proposed Road System of Narayanpur

Sl No.	Proposed Road System	Over all Width (R.O.W)	Remarks
1	Arterial	40 m – 60 m	
2	Sub-Arterial	25m – 40m	
3	Collector Street	18m – 25m	
4	Local Street	10m- 15m	

Source: Survey T&CP, NLP

Bus Station :-

Present ASTC site at Borkhamti along the N.H -15 (ward no. 3A) is proposed to develop as modern bus terminus. It also gives facilities to accommodate Auto& other commercial vehicles.

Truck Terminus:-

Two nos. of truck terminus near the junction point of Bye – Pass & N.H-15 at Dongia pichola and near FCI towards Banderdewa are also proposed.

Rail Linkages :-

Tatibahar Station is the nearest Rly Station from Narayanpur town which is about 4km from centre of the town and Harmoti is the railway junction nearer to master plan area. Road connecting to the station has proposed to improve by widening of roads.

Airport: -

Lilabari airport is located 52 kilometers from Narayanpur town. It connects Kolkata and Guwahati on four days a week.

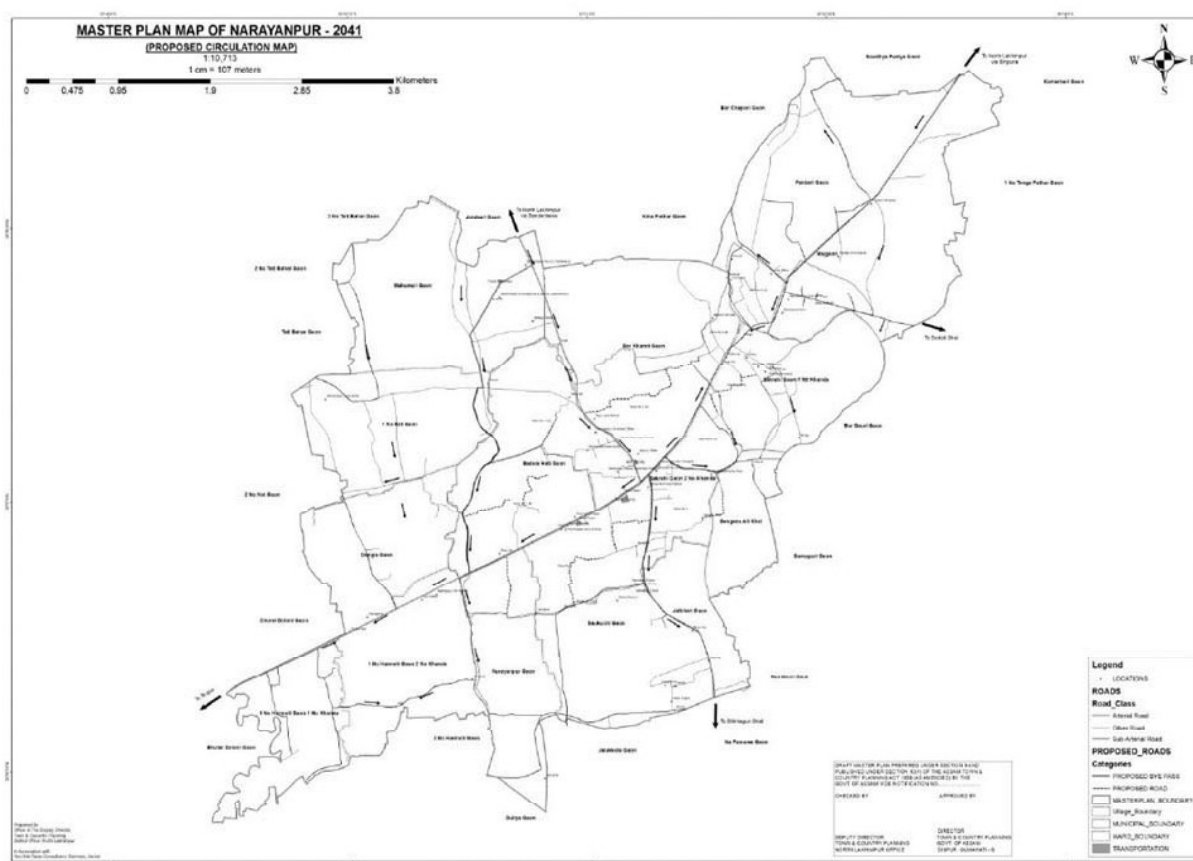
5.4 Parking:

Narayanpur town faces a major problem of parking. Parking is allowed only one side of road for two-wheelers. Right angled parking is also observed. Considering future growth of vehicles, parking facilities with adequate R.O.W. in main road & nearer to major junction has been proposed. At Narayanpur Town main traffic point & area near Madhabpur University, parking for small vehicles like Auto/Tracker/Mini Bus etc. is proposed with basic infrastructure facilities.

5.5 Proposals: -

As per government decisions, Zero Point of Narayanpur Town is identified at Narayanpur Municipal Office complex which is 85m MSL with Coordinates $93^{\circ}51'2,14''E$, $26^{\circ}57'21.80''N$. Roads levels of all major roads have to be fixed from the zero point such that the roads are not raised. Average MSL of Narayanpur is 87.5m. Lowest MSL point in and around Majgaon village and highest MSL is 95 m in and around Narayanpur gaon. Considering future growth of vehicles, parking needs etc. some proposals have been highlighted:-

- (1) Widening of all road within master plan area.
- (2) All earthen & gravel Road are to be converted to Paver – block road in a phase manner.
- (3) Foot path along Narayanpur – Bihpuria State Highway from Narayanpur Traffic Junction upto Mori – Dikrong River.
- (4) A rotary to be provided at Narayanpur main junction with provision of road widening, foot path, railing, street lighting etc.
- (5) A Bye – Pass from nearby Madhabpur Tiniali via Mohani Tatibahar Tiniali to N.H-15 near Beleguri Satra Road towards Banderdewa is also proposed for ease of movement of traffic and free the town from traffic congestion in future.
- (6) Tatibahar Station is the nearest Rly Station from Narayanpur town which is about 4km from centre of the town and Harmoti is the railway junction nearer to master plan area. Road connecting to the station has proposed to improve by widening of roads.
- (7) At Narayanpur Town traffic point & area Madhabpur University, parking for small vehicles like Auto/Tracker/Mini Bus etc are proposed with basic infrastructure facilities.



5.6 Category of Roads: -

Category wise road details of Narayanpur Master Plan Area as decided by concern committee are as below:

Table 11
Category wise road details of Narayanpur Master Plan Area

SL.No.	Description of the Road	Length(in Metre)
A. Principal main Roads		
1.	From Narayanpur Traffic point to near Narayanpur Agriculture SDO office (NRP-BIH state Highway)	1800.00
2.	From Narayanpur Traffic point to Madhabpur Tiniali (NH-15)	1995.00
3.	From Narayanpur Traffic point to near Bandhan Bank, Barkhamti (NH 15)	1500.00

B. Main Roads		
4.	Road from NH 15 Badula Satra Main Gate via Phuloni Thaan to (NH 15)	1349.00
5	Road from Badula Satra Namghar Tiniali to Mahani Tiniali	945.00
6.	Road from Marnoi Mohani Tiniali to onwards near Marnoi Harimandir Tiniali	385.00
7.	Road from Tatibahar PWD road from NH- 15 (Jakharia Tiniali) to H/P-culvert near Lakhi rice Mill	940.00
8.	Road Silikhaguri PED from Narayanpur Bihpuria State Highway to Radhapukhuri tiniali	1119.00
9.	Road from Silikhaguri PWD via Sawukuchi village near P.H.C to Mazghat P.W.D Road	1967.00
10.	Road from Sawkuchi Mazghat P.W.D road to NH-15 (Madhabpur Tiniali)	381.00
11.	Road from Narayanpur Bihpuria P.W.D road to BudhaMandir	300.00
12.	Road from Narayanpur Bihpuria State Highway (near Barnamaghar via Dafalavati Chuburi to Narayanpur Bihpuria State Highway.	1700.00
13.	Temera P.W.D road from Block Tiniali to near Firebridge office Campus.	490.00
14.	Raidingia P.W.D road from MD college Tiniali to Uddeshyapur	800.00
15.	Road from Narayanpur to Bihpuria State Highway to Kinapathar Rongman Bridge via Circle Office Narayanpur	600.00
16.	Road from NH-15 via Mahani Shiv Mandir to Mahani Tiniali	1300.00
C. Other Roads		
17.	Road from NH 15 to Gyanjyoti Path	230.00
18.	Road from NH 15 to Colony Path	310.00
19.	Road from NH 15 (from Banisanghaj) to NHSS Main Gate of Phuloni Than road	233.00
20.	Road from Banisangha Auditorium to Bhuyan Chuburi path	100.00
21.	Road from Badula L.P. school Tiniali to NH 15	385.00
22.	Road from Phuloni than road to (front of BEEO) Das chuburi	118.00
23.	Road from Phuloni than road to Reba Baruah Chuburi pa-----th	96.00
24.	Road from Mahani road to Bupen Baruah Chuburi	248.00
25.	Road from Mohni road to Kesaram Saikia Chuburi	200.00
26.	Road from Mohonito Sarbananda Chuburi Road.	77.00
27.	Road from Kalakhetra road to Sabajanin Harimandir Path	71.00

28.	Road from Kalakhetra road to Seuj Colony Path	200.00
29.	Road from Kalakhetra road to Prabitra Bhuyan Chuburi	120.00
30.	Road from NH-15 to Saikia Chuburi	200.00
31.	Road from NH-15 to Debeswar Bora Chuburi Poth	122.00
32.	Road from NH-15 to Bharali Chuburi	500.00
33.	Road from NH-15 to Khetradhar Chobukdhara Chuburi	110.00
34.	Road from Mohani to Premeswar Likhok Chuburi	123.00
35.	Road from Mohani to Tutu Borah Chuburi	45.00
36.	Road from Mohani to Biswa Boruah Chuburi	90.00
37.	Road from NH-15 to Priya Borah Chuburi Path.	75.00
38.	Road from Mohani to Anil Sarmah Chuburi	63.00
39.	Road from Tatibahar PWD road to Bakulban Path	189.00
40.	Road from Colony Path to Nipen Khatoniar Chuburi	32.00
41.	Road from Tatibahar PWD to Tilak Hazarika Chuburi.	63.00
42.	Road from Jakhala Namghar to Kolia Bhuyan Chuburi	50.00
43.	Road from NH-15 to Tatibahar PWD via Jakharia	50.00
44.	Road from NH-15 to Keshab Boruah Chuburi (Near Madhabpur)	130.00
45.	Road from NH-15 to Paresh Hazarika Chuburi	121.00
46.	Road from Nh-15 to Chakra Boruah Chuburi Path	71.00
47.	Road from Nh-15 to Tilak Boruah Chuburi Path	47.00
48.	Road from Nh-15 to Prabin Saikia Chuburi Path	118.00

49.	Road from Nh-15 to Bhairab Saikia Chuburi Path	85.00
50.	Monikanchan Path (Near Congress Bhawan)	265.00
51.	Road from Nh-15 to GuruHazarika Chuburi (Near Indian Oil depot.)	118.00
52.	Sikhariguri PWD road to Pankaj Goswami Chuburi Path	120.00
53.	Sikhariguri PWD road to Mridul Boruah Chuburi (Front of B.G Oil Mill)	65.00
54.	Sikhariguri PWD road to Biswanothia Chuburi Path	500.00
55.	Road from Biswanothia Harimandir to Rajen Chuburi	125.00
56.	Sikhariguri PWD road to Lohit Borah Chuburi	76.00
57.	Sawkuchi Town Committee road to Meghna Chuburi	95.00
58.	Sawkuchi Town Committee road to Biolin Mahanta Chuburi	72.00
59.	Road from Sawkuchi TC-Road to Biman Mahanta Chuburi Road	125.00
60.	Road from NH-15 to Paresb Bora Chuburi via Chabukdhara Residence	120.00
61.	Road from NRP-BIH State Highway to Narayanpur Press Club	44.00
62.	Road from NH-15 to Surya Boruah Chuburi Path.	80.00
63.	Road from NH-15 to Hazarika Chuburi (Near Gyanjyoti School)	150.00
64.	Road from NH-15 to Mina Das Chuburi Path	60.00
65.	Road from NH-15 to Mukul Hazarika Chuburi	200.00
66.	Road from Narayanpur Bihpuria State Highway via Mouzadar Chuburi to Buddhist Temple.	540.00
67.	Road from Budha Mandir Road to Pradip Mounlang Chuburi	52.00
68.	Road from Budha Mandir Road to Indra Mansekhun Chuburi	85.00
69.	Link road of Muslim Patty Path From Budha Mandir road to Narayanpur Bihpuria State Highway (Block Tiniali)	145.00
70.	Road from NRP-BIH State Highway to Bhagyapur Chuburi	252.00
71.	Road from Narayanpur Town Committee road to Madhab Das Chuburi road.	110.00
72.	Road from Narayanpur Town Committee road via Bhagyanagar Harimandir to Susil Gogoi Chuburi	120.00
73.	Link road of Budha Mandir road and Mouzadar Chuburi road	37.00
74.	NH-15 to Bikram Hazarika Chuburi Road	35.00
75.	Road from Sakrahi T/C road to Amul Chuburi (Near S.N. Mill)	94.00
76.	Road from Sakrahi Town Committee Road to Brajen Saikia Chuburi (S.N. Mill)	62.00
77.	Road from Sakrahi Town Committee Road to Sunil Hazarika Chuburi (S.N. Mill)	108.00

78.	Road from Sakrahi Town Committee Road to Lalit Dutta Chuburi (Near Padma Atta Satra)	171.00
79.	Road from Silikhaguri P.W.D to Profulla Boruah Chuburi	162.00
80.	Road from Silikhaguri P.W.D road to Khatiachuk	200.00
81.	Road from Silikhaguri P.W.D road to Silikhaguri P.W.D Around Tekelachuk	600.00
82.	Road from Tekelachuk Hari Mandir to Haridev Than	500.00
83.	Silikhaguri P.W.D road to Parimal Karmakar Chuburi Path (Near Statefed)	262.00
84.	Road from Sri Sri Padma Atta L.P School to Dafalavati Chuburi	450.00
85.	Road from Narayanpur Bihpuria P.W.D Road (Front of Das Engineering) Dafalavati Chuburi	500.00
86.	Road from Sakrahi T/C road to Govt Pond (via Lohit Boruah residence)	220.00
87.	Road from Narayanpur Bihpuria State Highway to Shanti Path	160.00
88.	Road from NRP-BIH State Highway to Phukan Chuburi Path.	155.00
89.	From NRP-BIH State Highway to Biswajeet Biswas Chuburi.	256.00
90.	Road from NRP-BIH State Highway to Musilm Colony Road.	150.00
91.	Road from Temera P.W.D.Road (Near B.D.Office)to KakotiChuburi	1000.00
92.	FromNRP-BIHStateHighwaytoMamoniBora Chuburi	78.00
93.	RoodfromNomyonpurBihpurioStateHighway toRongmonPath(ViaKabarsthan)	1000.00
94.	Link Rood ofMuninDeoriPathfrom Narayanpur BihpuriaStateHighway to KinapotharPWDrood	732.00
95.	RoadfromKundilNagarTownCommitteeRoadvia Nijaro DeoriChuburito Korbasthan Playground	364.00
96.	FromKabarsthanTownCommitteeRoodto Joganath Dolley Chuburi	257.00
97.	Road from KundilNagar TC - Road toBudha Prasad deori Chuburi Path.	50.00
98.	FromRaidingiaPWDroodtoPrasantaDeoriChuburi.	73.00
99.	RoadfromRaidingioPWDtoRomprosadChuburiPath.	96.00
100.	Road from NRP-BIH State Highway toBharali Chuburi Palh.	119.00
101.	From KobarsthanTownCommitteeRoadtoSukumar Chuburi (Near G.P. Office)	70.00

102.	FromExistingFridayMarketPaversBlockroadtoAaai Doley Chuburi.	450.00
103.	RoadfromNarayanpurBihpuriaStateHighwayto Rajen Roy Chuburi.	65.00
104.	FromNarayanpurBihpurloStateHighway toBisnu DeoriChuburi	180.00
105.	FromNarayanpur Bihpurio StateHighwayto Mahatma Gandhi Adarsa Hospital Road.	180.00

Source: NMB

Table 12**Master Plan Proposed/Existing Road, drain & other Development Scheme**

Sl. No.	Name of Scheme	Remarks
1	Bus Terminus at ward No. 3A (old Bus Stand)	
2	Beautification of Khulsua Pukhuri by providing Walking Zone, Park, Plantation Etc. at Ward No. 1A	
3	Proposed construction of Road from Sakrahi Town Committee Road to Kakati Chuburi (Near BDO, Narayanpur) at Ward No. 5B	
4	Proposed construction of Road existing Pavers Block Road (Near Lohit Boruah Residence) to Govt. Pond at Ward No. 5A.	
5	Infrastructure development by providing both side embankment with Switch Gate, Walking Zone, Bridge, Plantation Etc. at Mori Dikong River.	
6	Development of Garbage Dumping Ground of Narayanpur MB at Ward No. 6	
7	Development of Cremation Ground of Narayanpur MB at Ward No. 6A	
8	Construction of Drain Southern Side of Kinapather PWD from Circle Office Tiniali to Rongman Bridge at Ward No. 6A.	
9	Construction of Drain from Circle Office Tiniali to Mori Dikong River (Northern Side) at Ward No. 6A	
10	Contruction of Drain from Madhabdev University Tiniali to Uddeshyapur PWD Culvert (Western Side) at Ward No. 6B.	
11	Construction of Drain from Narayanpur Traffic Point to Mori Dikong River (Northern Side)	
12	Construction of Drain from Bornamgarh Tiniali to Narayanpur – Bihpuria State Highway Culvert (Near Shiv Mandir Southern Side)	
13	Construction of Drain from Narayanpur Traffic Point to Borveta Culvert (Southern Side)	
14	Construction of Drain from Madhabpur Tiniali to Borveta Culvert (Both Side)	

15	Proposed Bypass Road from Madhapur Tiniali via Mornoi Tatibahar Tiniali to NH – 15.	
16	Construction Drain from Mukul Hazarika Chuburi Road to Jakharia Culvert at Ward No. 3A.	
17	Construction Drain from Bakulban Tiniali Path to Gelekijan Near SBI (Both Side).	
18	Construction Drain from Bakulban Tiniali Path to Jakharia Culvert (Both Side).	
19	Construction Drain from Gelekijan (Near SBI) via Narayanpur H.S. School to existing drain of NH – 15 near Phulani Than Tiniali at Ward No. 1A.	
20	Proposed Road from Existing Tilak Hazarika Chuburi Road to (Puneswar Saikia Mohani Road.	
21	Proposed Road from NH – 15 (Near) Badan Chabukdhara Residence to Mahendra Bhuyan Residence (Sawkuchi) at Ward No. 2.	
22	Proposed Road from NH – 15 (Near Oil Depot) to Biswanathia Town Committee Road near Durga Borah Residence at Ward No. 2.	
23	Road from NH – 15 (Moni Kanchan Tiniali) to Biswanathia Town Committee Road near Mahendra Borah Residence Ward No. 2.	
24	Proposed Road from NH – 15 (Near Oil Depot) to Biswanathia Town Committee Road near Durga Borah Residence at Ward No. 2.	
25	Proposed Road from NH – 15 to (Near Mukul Hazarika Residence) to Mouzadar Tiniali Road.	
26	Water Supply Project at Ward No. 5B (Near BDO, Narayanpur).	
27	Infrastructure Development of Narayanpur H.S. School Playground at Ward No. 1A.	
28	Construction of Road from Town Committee Road (Near BEEO) to Ekrit Academy at Ward No. 1A.	
29	Construction of Road from Sakrahi PWD Road to Link Road of Haridev Than.	
30	Rejuvenation of Haridev Than Pukhuri by Providing Walking Zone.	
31	Construction of Open meeting Hall at Padma Ata Satra.	
32	Proposed Construction of Road from Narayanpur – Silikhaguri PWD Road to Link Road via Manikanchan Path at Ward No. 2.	

Conclusion

Due to lack of planning and lack of adequate development of the road network in the town, traffic movement within the town is inefficient. Local roads are mostly gravels and also narrow roads connecting surrounding areas/villages to main roads and are constructed in a haphazard manner. Widening of roads as per national norms is very essential for future development and ease of movement of all kinds of traffic. Right of Way (ROW) for different roads is proposed as per govt. guidelines (ref. to Table 10) in the Master plan area for future improvement of transport network and overall development.

In the master plan area new connecting roads and drain are proposed considering future development of the planning area. The proposal may be done on priority basis in a phased manner.

Chapter 6

INFRASTRUCTURE, PUBLIC UTILITIES & SERVICES

SOCIAL INFRASTRUCTURE:

6.1 Introduction

Quality of life in any urban center depends on the availability of and accessibility to quality of social infrastructure. It includes educational institution, health care facilities, recreation facilities, community centers, socio-cultural facilities, and fire stations. Master plan facilitates the provisions of social infrastructure, in terms of land allocation, land reservations accommodation reservations through development controls.

6.2 Education

Educational institutes must be scattered to give maximum services to the projected population of Master Plan Area. Nursery , Primary & Pre – Primary School would be nearer to residential area and Higher Level Institution like College , Higher Secondary etc, should be in a location where communication facilities from surrounding area are easily available as well as infrastructure can be provided for future growth. The requirement of education facilities for projected population for the plan period is estimated as per norms as below:-

Table 13

Requirement of Educational Facilities

Sl. No.	Type	Reqd. No.	Area Reqd. in Hectares
1	Pre Primary / Nursery	8 No	0.64
2	Primary School /	4 No	3.2
3	Sr. Secondary School	3 No	4.8
4	General College	1 No	4.0
5	School of handicapped	1 No	0.3
6	Integrated School without Hostel Facility	1 No	3.9
7	Integrated School with Hostel Facility	1 No	3.9
8	ITI	1 No	1.40
9	Polytechnic	1 No	2.40
10	New University	1 No	60.00

The existing education facilities are somewhat adequate in Narayanpur town area. Urban area has various higher education institutions in field of science, Arts, and commerce. At present Narayanpur has two Higher Secondary School namely Narayanpur H.S.S & Narayanpur Adarsha H.S with 679 students & 37 teaching & after staff. These schools may improve to accommodate new courses as per new educational policy and also skill development courses as per local & regional needs.

Primary education is the fundamental right of all Indian citizens and every village needs to have a primary school to provide basic needs as per the education facility standards in rural area, primary school needs to be provided in every village. Almost all the villages in the planning area should have primary/ nursery school.

6.3 Health

Primary sub- center is the lowest unit in hierarchy of rural health infrastructure. It is the first point of health care system with community. Primary sub- centers needs to be manned by at least one paramedical staff. As per standards, primary sub-centers cater to population of around 5,000. Each village needs to be provided with primary sub-center.

Table 14

Existing & Required Health Facilities

Sl. No.	Category	Existing	Required Nos	Area Req'd. in Hectares
1	Dispensary	5	2	0.16
2	Child Welfare & Maternity Centre (25 – 30 beds)	1	2	0.50
3	Intermediate Hospitals (80 beds)	0	1	1.00
4.	Nursing Home	0	1	0.30
Total				1.96

Source:- Survey TnCp

The planning area has 5 (five) dispensaries, and 1 (one) Adarsh Medical center. So the whole planning area has sufficient health facilities. Patients from Narayanpur mostly rushed to Lakhimpur for better medical treatment.

6.4 Socio – Cultural Facilities:-

Total area of 0.80 hectares is earmarked for the plan period for Narayanpur planning area. Proposed requirement for socio – cultural facility are as below:-

Table 15
Requirement / Proposed Socio – Cultural Activities

Sl. No.	Scio –Cultural Facility	No.	Area Requirement in Hectares
1	Community Hall & Library	1	0.2
2	Music , Dance	1	0.1
3	Meditation & Spiritual Centre	1	0.50

6.5 Office:-

Master Plan Area included mainly offices of Narayanpur M.B., C.O., ASTC, Post Office, BDO Office, Police Station, Fire Station etc. Keeping into mind future growth, an area of 162.00 hectares of land has been earmarked under P & SP Zones. Offices are scattered in different location of the master plan area, which may be accommodated within the proposed Public & Semi-public Zone.

6.6 Police Station:-

Existing Police Station of Sakrahi ward No.- 5 having an area of 0.54 hectores . One Police Outpost also recommended for the plan period with 0.16 hectores of level area for future needs.

6.7 Fire Station:-

One fire station existing at ward No. -5 with an area of 0.54 hectares is sufficient for the planning area.

PHYSICAL INFRASTRUCTURE**6.8 Water Supply:-**

Narayanpur Town still not served by potable drinking water supply to the household. Existing water treatment plant & overhead tank near Narayanpur Post Office operated by P.H.E Deptt, needs renovation and upliftment to cover entire population under planning area. For proper design & layout of distribution net

work for water supply to the people is newly proposed. PHED, Assam may take necessary arrangement for this. Water requirement for the master plan area for the projected population would be 1.09 MLD in 2031 AD and 1.28 MLD in 2041 AD respectively assuming 70 LPCD for domestic consumption and additional 25% for commercial, industrial & other uses.

Further provision of **Fire Hydrants** proposed to be installed at following market places & nearby areas from the present or proposed Urban Water Supply Schemes:

- (i) Market area near Narayanpur main traffic point;
- (ii) Junction of SH43 & Silikhaguri ghat road;
- (iii) Block tiniali.

6.9 Electricity

Requirement of electricity for uninterrupted power service in the planning area based on the report of APDCL, Bihpuria Electrical Sub-Division would be 18 MW in 2041 AD for the projected population. 5 Nos of 11kv. Sub-station would be required including existing ones for plan period. These sub-station are proposed at different locations to facilitate whole planning area populations,

At present three Electrical Sub-Station of Narayanpur for entire planning area, Total present installed capacity is 25 MVA & average consumption of electric power is 5 MU. Nos of street light to be increased from present 136 Nos.

Existing status of Electrification of Narayanpur Master Plan area:

- 1. Number of street light :- 136Nos
- 2. No. of sub – stations :- 3 Nos
- 3. Sources of power :- APDCL Grid
- 4. Total installed capacity :-25 MVA
- 5. Total capacity of power required for uninterrupted service :- 18 MW
- 6. Average consumption of electric power :- 5 MU

6.10 Drainage:

Many localities of Narayanpur faces serious problem of drainage, particularly during rainy season. Some areas are fully submerged during summer season. For this some drains are proposed for construction after detail drainage survey & design to mitigate future drainage problems. Major drains proposed are as follows:

(i) Drain along southern side of Kinapathar PWD road from Circle office Tiniali to Rongman Bridge at Ward no.6A.

(ii) Drain from Circle office Tiniali to Mori Dikrong River (Northern side) at Ward no.6A.

(iii) Drain from Madhabdev University Tiniali to Uddeshyapur PWD Culvert (Western side).

(iv) Drain from Narayanpur traffic point to Mori Dikrong River (Northern side).

(v) Drain from Narayanpur Traffic point to Barbheta Culvert (Southern side). Etc.

6.11 Dumping Ground:-

Present dumping ground of Panbari with an area of 0.27 hectars proposed for expansion to accommodate and their treatment with modern methods of SWM. Further, a buffer zone proposed to be created to protect the surrounding residential & market Area. Daily Waste Generation of Narayanpur Town is about 3.2 tonne. Considering future growth of master plan area an area of about 0.074 Sq.km within No.1 Notgaon is identified and proposed for SWM site with treatment facilities.

6.12 LPG Godown :-

One LPG Godowns near Madhabpur Chariali serves the entire area, which is sufficient for projected population.

Chapter 7

ENVIRONMENT AND CITY BEAUTIFICATION PLAN

7.1 Introduction

Climate change discourse has placed environmental issues at the core of planning. Another reason for discussing environment is to how to beautify the town. Further, rejuvenation of water bodies through different measures also helps to conserve environment of the area.

7.2 Recreational & Open Space:-

Existing recreational facilities of the master plan area are mainly

- I) Children Park (Gandhi maidan) at Borkhamti, ward no -3
- II) 2 Nos playground (Narayanpur Playground & Barkhamti Playgrounds)
- III) Madhabdev Kalakhetra (Project is in progress)

Considering future needs along with improvement of existing parks, playground etc. following proposals are taken for the Master Plan area during plan period.

- (i) Mori - Dikrong River front development project for a span of 2 – 3 km along the river with walking zone, Cycle track, boating facilities along with park. This will also protect the town from excess water of the river Mori-Dikrong during rainy season as well as to protect the river from future pollution.
- (ii) Radha Pukhuri :- Radha Pukhuri of Saukuchi village with as area of about 6.09 hectors has tremendous potentiality for creating recreational facilities & to develop as a tourist destination. Recreational facilities such as boating, walking zone, cycle track children parks; gardening, cafeteria etc are proposed at this site during plan period.
- (iii) Khulsha Pukhuri at Badula Hati gaon along N.H – 15 also proposed to develop as recreational centre with boating facilities , walking zone , children park & gardening may also proposed at the site with 0.39 hectors of existing area.
- (iv) Rejuvenation of Haridev Than pukhuri by providing walking zone.
- (v) Construction of open meeting hall at Padma Ata Satra.
- (vi) Infrastructure development of Narayanpur H.S. School Playground at Ward no. 1A.

Further, all fields/open spaces/maidans are proposed to be no construction zones within master plan area.

7.3 Social Forestry

Social forestry refers to the plantation and management of trees in urban areas. Within the master plan area no social forestry sites as per information received from Social Forestry Division, Lakhimpur. Social forestry may have been proposed around the industrial area which would prevent the smoke and noise pollution from reaching nearby residential areas in the town. It would also act as a buffer in separating the proposed solid waste management site from the rest of the master plan area. Tree planting and natural forest management initiatives are proposed to be undertaken along the bank of Moridikrong River and surrounding the dumping ground to create a buffer for nearby area.

**Panbari Bor Namghar,
Narayanpur**


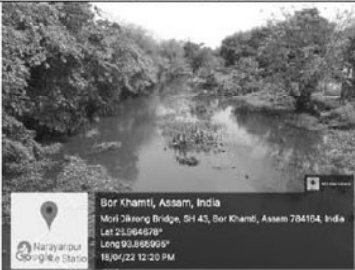




**Madhabdev University,
Narayanpur**



Table 7.1

Water Bodies with Historical Background

Sl. No.	Water Bodies	Historical Background	Photographs
1	Khulsua Pukhuri	Khulsua Pukhuri is a Historical Pond covering more than one Bigha of land associated with Badala Padma Ata, a reknown vaishnavite disciple of Madhabdev. This pond is situated by the side of NH-15 and near Sri Sri Badala Satra and Madhabdev Kala Khetra.	
2	Mori Dikrong River	Historical Dikrong river had been flowing through the heart of Narayanpur. In 1918 this river changed its course and begun to flow through the east of Bihpuria Town from Bandardewa (Arunachal Pradesh) and joined Sobansiri near Badatighat. Now the entrance of Mori Dikrong, which was once used by Mahapurush Madhabdev, Badala Padma Ata, Banshi Gopal Dev, Keshab Charan Ata and other Vaishnavite Ata and Scholars of Mediaval Narayanpur is going to be existence only.	
3	Kalani Than Phukhuri	Kalani Than is the frist Than established by Sri Sri Badala Padma Ata in the heart of Narayanpur. This historical Kalani Pukhuri was used by Sri Padma Ata. Protection, preservation and beautification of this historical pond are very important.	
4	Haridev Than Pukhuri	Haridev Than Pukhuri is a Historical Pond associated with the names of Two vaishnavite personalities Sri Haridev and Badala Padma Ata. This pond is situated in the heart of Town.	

Source: Secondary Data

7.4 Festivals

Assam is a land of fairs and festivals. Most of the festivals celebrated in Assam characterize the spirit of accommodation and togetherness in the diverse faith and belief of her inhabitants. This perfect fusion of heritage of her numerous races has made Assam the home of the most colourful festivals reflecting the true spirit, tradition, and lifestyle of the people of Assam. The major festivals celebrated in Assam are Bihu, Baishagu, Ali-Ai-Ligang, Baikho, Rongker, Rajini Gabra Harni Gabra, Bohaggiyo Bishu, Ambubashi Mela and Jonbill Mela and so on. The tribals of Assam have their own colourful festivals like the Kherai Puja of the Bodos, the Baikhu and Pharkantis of the Rabhas, Ali-ai-ligang and Parag of the Mishing tribe, the Sagramisawa wansawa and laghun of the Tiwas. Some of the main festivals celebrated in Lakhimpur district are Buhi, Rass and Me-Dum-Me-Ph.

(a)Bihu: Bihu is the most important festival of Assam. It is celebrated with joy and abundance by all Assamese people irrespective of caste, creed, religion, faith, and belief. Three Bihus are celebrated in a year: Bohag Bihu which augurs the wish for a good harvest because this is the time when farmers start sowing. Kaati Bihu which is observed to mark the cutting and binding of grains and

(b)Me-Dum-Me-Phi: The Me-Dum-Me-Phi is performed annually on the 31st of January and helps to develop social contacts and community feelings among the Ahoms. Colourful processions with devotees in traditional finery are also taken out on the occasion. It is Figure 11.13: Images of Bihu festival and their culture North Lakhimpur Master Plan, 2041 89 believed that if Me-Dum-Me-Fi is not celebrated in the customary way, the deities will be displeased and consequently there will be crisis in the State like political rivalry and infighting, increased activities of militancy, natural upheavals like floods and earthquakes resulting in loss of human lives and property.

(c) Rass Festival: Raas festival or Raas Leela is a cultural festival of Assam where the life of Lord Krishna and His many wonders are performed on stage in various forms of play and acts. In different places of the Lakhimpur district, the Rass festival is organized with great enthusiasm. Artistes belonging to ethnic Mising, Bodo and Christian communities also performed in various roles in that Raas.

7.5 Key Issues:

- Despite having several tourist spots within the town, there is no tourism department to oversee the respective spots for maintenance and operation.
- Absence of proper infrastructure in the existing tourist spots and certain destinations along the routes of tourism circuit.
- Temple in the city is of local importance which does not generate much income for the city.
- Lacks of promotion of tourism for entire Lakhimpur district, tourists are unaware of the local tourist spots and destinations.

7.6 Conclusions

Narayanpur despite being a small and developing town has the potential to be a great potential tourist destination with its natural beauty and other resources. The town combines the scenic beauty of the plains and the rivers also have the potential to promote eco-tourism for the city and the region. The town has space for improving infrastructure like parking spots, basic amenities, connectivity, etc. Organizing and propagating mela and temples as a part of the religious tourism is a great way for the town to generate revenue. Publicity and development of tourist spots are important for promotion of tourist development for which the town needs additional resources and planning. With time comes development and with development comes opportunities to create good tourist spots in and around the town for which tourist circuits can be created in the planning area to ensure proper flow of tourists. We could also promote local crafts, artisan and handicrafts, live pottery, etc. for tourists. Cultural & spiritual workshop can be incorporated at their residence or dedicated area could be allocated to promote culture of the town. Overall, the town has a great scope in becoming a tourist destination with all its natural resource.

Chapter 8

LAND USE PLAN

8.1 Introduction

In urban area land use planning is the key aspect for preparation of Master Plan. Land use the predominant use of land such as residential, commercial, public, semi-public, industrial, recreational, transportation and other agriculture and eco-sensitive area. In land use plan different zones are defined for the planning purpose. These zones are related to different zones within municipal areas based on the different character and the planning area outside the municipal area. In this chapter different type of landuse of Narayanpur is discussed.

8.2 Proposed Land Use Plan Aims & Objective

According to the section 5.3.1 of the URDPFI Guidelines the land use zones have been identified for the Narayanpur Master Plan, 2041. Narayanpur Master Plan is prepared with the following objective to achieve estimated needs for the plan period up to 2041 AD.

- I) To improve the overall conditions of the planning area for future growth & development.
- II) To improve the transport network with surrounding growth centre.
- III) To improve the urban living standard by improving basic infrastructure & recreational facilities.
- IV) To function as a economic growth centre for increasing economic activities, trade and commerce, small industries related with local produces.
- V) To maintain environment friendly atmosphere in the entire planning area and outskirts.

Table 16 :: NARAYANPUR MASTER PLAN : EXISTING LANDUSE

EXISTING LANDUSE AREA				
Sl. No.	Land Use Category	Area (Sq. Km.)	Percentage to Developed land	Percentages to Total Area
1	Residential Use	6.04	63.92	21.25
2	Commercial Use	0.56	5.93	1.97
3	Industrial Use	0.03	0.31	0.10
4	Public & Semi Public Use	0.95	10.05	3.34
5	Recreational Use	1.19	12.59	4.18
6	Transport & Communication	0.68	7.20	2.39
	Total Developed Land	9.45	100	33.23
7	Agriculture & others	18.04		63.46
8	Water Bodies	0.94		3.31
	TOTAL AREA	28.43		100

Source: T&CP Survey.

8.3 Allocation of Land:-

Narayanpur Master Plan Area Proposed for the projected population of 16754 for the year 2041 AD. Total developed area for the projected population is with land utilization Rate of 169.69 hectare per 1000 population.

Proposed land use structure for the Master Plan Area has been decided taking into consideration of existing land use pattern with minimum dislocation and growth of favourable relationship between residential area & working areas. Some mixed land uses are also proposed for making the area more functional for future development.

Table 17 :: NARAYANPUR MASTER PLAN PROPOSED LANDUSE

PROPOSED LANDUSE AREA				
Sl. No.	Land use Category	Area (Sq. Km.)	Percentage to Developed Land	Percentage to Total Area
1	Residential Use	13.49	57.74	47.45
2	Commercial Use	0.95	4.07	3.34
3	Industrial Use	1.84	7.86	6.46
4	Public & Semi Public	1.62	6.94	5.70
5	Recreational Use	3.29	14.11	11.59
6	Transport	2.17	9.29	7.63
	Total Developed Land	23.36	100.00	82.17
7	Agriculture	3.99		14.03
8	Waterbodies	0.94		3.31
9	Green Belt	0.14		0.49
	TOTAL AREA	28.43		100.00

Source: T&CP Survey.

Table 18: COMPARISION TABLE

Sl. No.	Land Use	EXISTING LANDUSE		PROPOSED LANDUSE	
	Category	Area (Sq. Km.)	%	Area (Sq. Km.)	%
1	Residential Use	6.04	21.25	13.49	47.45
2	Commercial Use	0.56	1.97	0.95	3.34
3	Industrial Use	0.03	0.10	1.84	6.46
4	Public & Semi Public Use	0.95	3.34	1.62	5.70
5	Recreational Use	1.19	4.18	3.29	11.59
6	Transport & Communication	0.68	2.39	2.17	7.63
	Total Developed Land	9.45	33.23	23.36	82.17
7	Agriculture & Bamboo Plants	18.04	63.46	3.99	14.03
8	Water Bodies	0.94	3.31	0.94	3.31
9	Green Belt			0.14	0.49
	TOTAL AREA	28.43	100	28.43	100.00

8.4 Land Use Pattern:-

Residential Use

Existing land uses of the master plan area reflected low density settlement with scattered resources, under – utilization of land will minimize the available land resources for potential uses. So for optimum utilization of available land, an area of 13.49 Sq. km, which is about 47.45 % of total planning area, is earmarked for residential use.

Commercial Use

Narayanpur area is mainly dominated by agricultural activities, petty businesses etc. But, the town has sufficient potentiality to improve its commercial activities. It is one of the major junction for traffic towards Arunachal Pradesh, Bihpuria , North Lakhimpur , Gahpur etc . Considering above, Commercial use of Master Plan Area are to be increases. There are 2 (two) daily markets and 1 (one) weekly market, retail shops , service shops , whole sale market etc , are running in the master plan area .Total land area earmarked for commercial use is 95.00 hectares which is about 3.34 percent of total proposed planning area.

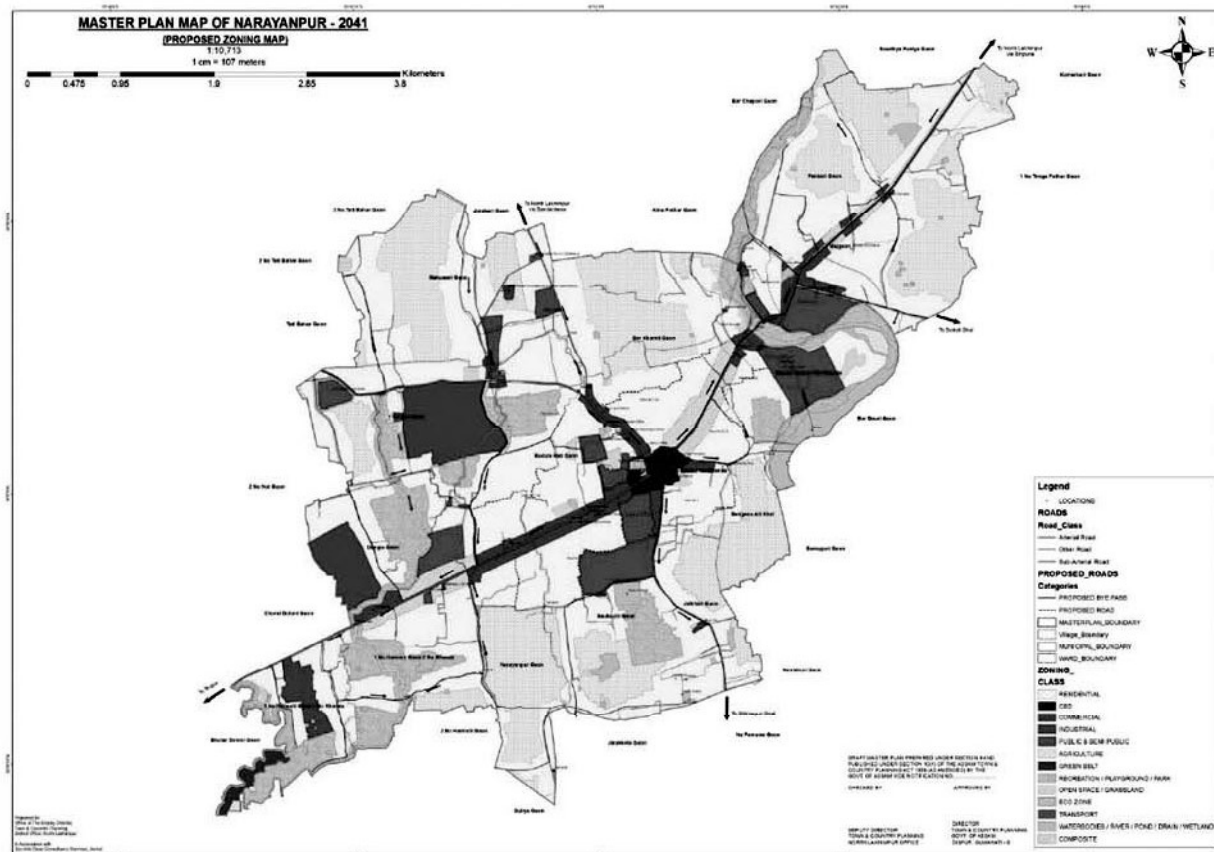
Provision for **Vendors Zones** are identified at the following location within master plan area:

- (i) Opposite side of Narayanpur MB;
- (ii) Near Radha-pukhuri tiniali at border of Saukuchi & Jalbharia gaon;
- (iii) Area near Madhabpur University.

Industrial Uses

There is no major industries presently exist in Narayanpur area. The area is mainly dominated by agricultural activities, Small & household industries, handloom & textile, bamboo crafting, rice mill etc. has greater potentiality. At present, 4 small scale industries running in Narayanpur Master Plan area.

An area of 184 hectares is earmarked for industrial uses, which is about 6.46 percent of total planning area; considering expected industrial development of the planning area. Uses permissible in industrial zones are as in Annexure –A. Industries not included in Annexure-A, are allowed in Medium Industrial Zone subjected to clearance from Industries Department and Pollution Control Board.



Annexure – A

General Industries :-

1. Manufacturing of mirror from sheet glass and photo framing.
2. Cotton spinning and weaving.
3. Automobile servicing and repairs station.
4. Flou mills (excluding Domestic Atta Chakki).
5. Malted food.
6. Food including fruits and vegetables processing.
7. Pulping and fermenting of coffee beans.
8. Instant tea / coffee processing.
9. Non – alcoholic beverages (soft drinks).
10. Fragrances and industrial perfumes .
11. Food additives , nutrients and flavors.
12. Fish processing.
13. Organic nutrients.

14. Surgical and medical product not involving effluent / emission generating processes .
15. Laboratory – wares.
16. Wire drawing (cold process) and bailing straps .
17. Laboratory chemicals involving distillation, purification process.
18. Tyres and tubes vulcanization , rethreading , moulding .
19. Pesticides / Insecticides / Fungicides / Herbicides / Agrochemical formulation .
20. NPK Fertilizers / Granulation.
21. Pharmaceuticals formulations .
22. Khandsari sugar .
23. Pulverizing units.
24. Washing of used sand by hydraulic discharge .
25. Atta chakkies .
26. Rice mullors .
27. Steeping and processing of grains .
28. Mineralised water .
29. Dal mills .
30. Bakery products , biscuits , confectionery .
31. Groundnut decorticating (dry).
32. Supari (Betel nut)and masala grinding .
33. Chilling plants and cold storages .
34. Ice cream or Ice making .
35. Tailoring and garment making .
36. Cotton and woolen hosiery .
37. Apparel making .
38. Handloom weaving .
39. Shoelace manufacturing .
40. Gold and silver thread zari work .
41. Gold and silver smithy .
42. Leather footwear and leather products excluding tanning .
43. Musical instruments manufacturing .
44. Sporth goods .
45. Bamboo and cane products (only dry operations).
46. Cardboard or corrugated box and paper products (Paper or pulp manufacturing excluded) .
47. Insulation and other coated papers (Paper or pulp manufacturing excluded).
48. Scientific and mathematical instruments .
49. Furniture (Wooden and steel).

50. Assembly of domestic electrical appliances .
51. Electronic Goods assembling .
52. Fountain pens .
53. Polythene , plastic and PVC goods through extrusion / mouldings .
54. Rope (cotton and plastic) .
55. Carpet weaving .
56. Assembly of air coolers conditioners .
57. Assembly of bicycles , baby carriage and other small non motorized vehicles .
58. Electronic equipments (Assembly).
59. Toys .
60. Water softening and de - mineralized plants .
61. Paints (by mixing process only).
62. Candles .
63. Carpentry (excluding saw mill).
64. Oil ginning / expelling (no hydrogenation / refining).
65. Jobbing and machining .
66. Manufacture of steel trunks and suitcases .
67. Paper pins and U - clips .
68. Block making for printing .
69. Optical frames .
70. Power looms / handlooms (without dyeing & bleaching).
71. Printing press.
72. Garments stitching , tailoring .
73. Thermometer making .
74. Footwear (rubber).
75. Plastic processed goods .
76. Medical and surgical instruments .
77. Electronic and electrical goods.
78. Rubber goods industry.

Transportation

In adequacy of transportation facilities is also one of the major hindrances for planned development. Though Narayanpur town is well connect with roads with surrounding major towns & villages, hence, there is scope for its development.

Early accessibility and rapid movement of goods & people are the main criteria for proposed development of transportation system of master plan area,

N.H – 15 passes through the master plan area connect it to all, other parts of Assam, Arunachal Pradesh, & other parts of India. Further, Narayanpur is connected with its nearest town Bihpuria by State Highway.

A Bye – Pass from nearby Madhabpur Tiniali via Mohani Tatibahar Tiniali to N.H-15 near Beleguri Satra Road towards Banderdewa is also proposed for ease of movement of traffic and free the town from traffic congestion in future.

Proposals :-

- (1) Widening of all road within master plan area.
- (2) All earthen & gravel Road are to be converted to Paver – block road in a phase manner.
- (3) Foot path along Narayanpur – Bihpuria State Highway from Narayanpur Traffic Junction upto Mori – Dikrong River.
- (4) A rotary to be provided at Narayanpur main junction with provision of of road widening, foot path , railing, street lighting etc.

Parking: -

Considering future growth of vehicles, parking facilities with adequate R.O.W. in main road & nearer to major junction has been proposed.

At Narayanpur Town traffic point & area near Madhabpur University, parking for small vehicles like Auto/Tracker/Mini Bus etc. are proposed with basic infrastructure facilities.

Public & Semi – Public Use

This use zone mainly consists of various services , government as well as semi government office , educational institutes, health centre , religious & socio – cultural institution etc . An area 162.00 hectares of land are earmarked for these Public & Semi – Public uses, which is about 5.70 percent of total planning area.

Green Belt Zone

For protection and preservation of natural environment an area of 14.00 hectares, consisting 0.49 percent of total planning area is earmarked for green belt zone. Most of these areas are earmarked to villages. Green belt mainly proposed in 1No. Harmotigaon, Inokhanda and Majgaon. Permissible uses within this zone are existing villages, bird sanctuary, farm houses, sericulture, fisheries etc. Within green belt zone development of land is permitted with the approval of govt. as per Zoning Regulations applicable for green belt zone.

Water Bodies

One of the major problems of development is wet land. Shrinking of wet lands by encroachment, siltation of wet lands & drains, water logging, flash floods, depletion of flora / fauna also affects the environment, health and livelihoods of the nearby people. To overcome these, preservation of wet lands is very much essential. Within Narayanpur Master Plan Area Mori-Dikrong river & its surroundings to be developed with proper planning for preservation of the wet lands as well as beautification of town.

Further, considering future growth and also to protect the banks of the natural water bodies; an area upto 15 metres distance in Municipal Boards areas and upto 50 metres distance in non-municipal area from the water bodies (rivers, wetlands and natural channels) are proposed to be demarcated as no construction zone within master plan area.

Agriculture

Since Narayanpur areas are predominant in agriculture activities, an area of 399.00 hectare of land area earmarked for agriculture, which is about 14.03 percent of total planning area.

Town Planning Scheme:

An area of about 0.50 Sq. km within Mazgaon along the state highway towards Bihpuria is identified for TPS for future development.

Zoning plan: -

Zoning is an essential part of overall planning which consists of proper use of available land resources as per suitability. Zoning define as the use, height, size, density of any structure to be build on any particular land. Zoning regulations play a vital a role in controlling and promoting urban development on deserved uses. It is an integral part of any Master plan, which has been used to control development of urban areas, on an orderly manner.

Land Use Permissibility:

Final Uniform Zoning Regulations approved by government of Assam, vide Govt. notification, No.TCP 31/200/54 dtd the 12th June 2000, will also applicable for all towns except Guwahati & their amendment, if any and the Assam Building Construction (Regulation) Act, 2010 and The Assam Unified Building Construction (Regulation) Byelaws, 2022 will be applicable to Narayanpur Master Plan area also.

CHAPTER-9

PROPOSED PROJECT, BRIEF AND TENTATIVE FUNDING SOURCES

9.1 Introduction

Functions and Needs of the Planning Area: The master plan of Narayanpur has been proposed considering future needs of the population of the area and expected future activities. Further, increasing activities along the corridor of N.H – 15 Narayanpur plays a major Communication junction with Arunachal Pradesh and the Town has tremendous potential for growth. Since the area is mainly dominated by agricultural activities, so the livelihood patterns of the indigenous community are also given due consideration in formulation of the proposed land use plan to accommodate the increasing future activities, which will be expected to meet the future functional need of the area.

9.2 Major Factors of the Planning Area:-

Following major functions are expected from Narayanpur Master Plan Area based on the studies on existing situations and future need :-

- (1) To function as growth centers for trade and commerce.
- (2) To function as center for small scale and household industries.
- (3) To function as a recreational area for nearby town and regions.
- (4) To function as a transportation hub.
- (5) To function as a tourist destination in an attractive manner

9.3 Plan Concept

Smaller planning units are expected to be self-sufficient to meet local needs of its citizen, however for special purposes they have to move nearest higher order town for their requirement. So, the plan takes the neighborhood concept with development approach.

9.4 Plan Period

Plan Period for the master plan is taken for a span of twenty years up to 2041 A.D. Since the growth of population is a continuous process, hence the Master Plan tries to accommodate future needs for the projected population. But for effectiveness of Master Plan, future modification, alterations, additions to the proposed plan is required as per specific requirement of the area.

Projected population of the Master Plan Area is calculated based on average population growth of the area

Table 19

Population Projection of Narayanpur

Year	Projected Population
2011	10105
2021	11960
2031	14155
2041	16754

Source:- T&CP Lakhimpur

9.5 Identify Priority Sectors and Project

The plan proposals for Narayanpur Master Plan Area spread up to 2041. It is quite obvious that the natural development will continue and the private developers will play an important role in this respect. As such, the private development is encouraged in conformity with the Master Plan. It is strongly recommended to stop unplanned and sporadic developments but to encourage balance planned and sustainable development where the provision for necessary physical infrastructure and socio-economic amenities are economically made possible. There are some immediate necessities as pointed out by the various stake holders, which are to be taken up as priority schemes for the Master Plan Area which is listed below:

1. Widening and improvement of roads, with street lights and demarcation of notified parking area.
2. Improvement of existing market into a well-planned, people friendly business hub.
3. Construction of a Tourist lodge and a Marriage hall at Badulahati gaon..
4. Construction of a Town Hall & old age home.
5. Development of Housing Colony for all sections of the Society considering the scenic beauty of the town.
6. Construction of Slaughter house.
7. Improvement of existing traffic signal points and setting up new ones.
8. Setting up of Organic farming industry.
9. Setting up of Micro Small and Medium Enterprises.(MSME)
10. Improvement of existing Bus station.
11. Construction of Vendor and Hawker market.

12. Construction of public bus stand and truck stand.
13. Construction of Auditorium and library.
14. Improvement of existing hospital and dispensaries.
15. Construction of cold storage, ware house etc.
16. Development and Construction of playground and Indoor stadium.
17. System of regular collection and disposal of garbage in the master plan area by the concerned authority.
18. Scheme for Solid waste Management system as per waste management Rule, 2016.
19. Preparation and execution of a comprehensive drainage scheme.
20. Execution of independent Residential Land Development.
21. Water supply scheme

In the first phase, the schemes like widening and improvement of roads, construction of new roads, provision for required spaces for parks, playgrounds and parking places and improvement of commercial and market areas including existing market, daily bazaar etc. can be taken up. The Municipal Board has to play an important role visioning with other Govt. agencies in formulation and execution of such schemes in the Master Plan Area. All the above schemes need to be carried out to make the plan area in to healthy place of living.

In addition to the above, the plan also recommends for the establishment of Health centre, construction of Administrative block for all Govt. offices under one roof. Feasible location for all the proposals cannot be given due to non-availability of suitable govt. land in the master plan area. Specific location for proposals to be ascertain at the time of implementation through detail discussion with different stakeholders.

9.6 Housing Requirement

Housing needs with increase as per increase of population size of the area and occupancy rate or household size. Assuring average household size is 4.7 and acceptable housing stock is likely to be shrink 1% annually , projected housing requirement of Master Plan Area is estimated as below :-

Table 20

Sl. No.	Items	Requirement of Housing Unit	
		2031	2041
1	Population	14155	16754
2	Increase in population	2195	2599
3	Av. Household Size	4.7	4.6
4	Requirement of Housing Unit Including Backlog	467	565
5	Replacement Requirement	5	6
6	Total Requirement of Housing Unit	472	571

Source: Census Handbook 2011

Nraayanpur town has no identified / notified slum settlements. As per 2011 census, Narayanpur Municipal Board has 1255 Nos of House Hold.

9.7 Identify Land Site for Proposal

The plan proposes the following at suitable location for taking up the proposals in accordance with the existing trends of growth as well as for balanced development. Feasible location for all the proposals cannot be given due to non-availability of suitable govt. land in the master plan area. Specific location for proposals to be ascertain at the time of implementation through detail discussion with different stakeholders.

- (1) Wholesale Market Complex at Makuwari gaon.
- (2) Development of parking area at suitable location.
- (3) Auditorium and Marriage Hall at Sakrahi 1 No. khanda behind police station.
- (4) Library
- (5) Indoor Stadium
- (6) Truck Terminus at Makuwari gaon besides proposed Bye-pass.
- (7) Water Supply Scheme
- (8) Solid Waste Management System
- (9) Oil filling station
- (10) Tourist lodge at Badulahati gaon.
- (11) Cycle track along proposed River front development area.

9.8 Fund Requirement for Each Sector/ Project

Fund requirement for each sector project will be finalized by the ULB & concerned line department after preparation of detailed project report as per Govt. norms and instruction.

CHAPTER-10

DISASTER PLAN

10.1 Introduction

The purpose of preparing Master Plans for cities are not only meant to improve urban infrastructure but also to provide quality life and a suitable environment to the urban communities by mitigating increasing incidences and severity of disasters such as floods, hurricane, landslides etc. thus by identifying the complications faced by an area, plus must be prepared for cities to make it habitable and environmentally sustainable.

Narayanpur is prone to flood, storms and earthquake. Therefore, adequate emphasis could be placed on protecting environmentally sensitive and disaster-prone areas.

Hazards Specific Proneness in Narayanpur are:

➤ **Earthquake :-**

As per the latest seismic zoning map of India, the Narayanpur region falls under High Risk Zone- V, where a maximum intensity of IX can be expected.

➤ **Flood :-**

Even Narayanpur town is also facing urban flooding in many localities due to lack of proper drainage system.

➤ **Soil Erosion :-**

The soil erosion is major threat to many areas due to the hilly terrain in some parts of the Master Plan Area.

➤ **Fires :-**

The fire takes places in Narayanpur due to short circuit in commercial areas, thatched house. Mainly fire takes place from March to April when the climate remains very dry.

Cyclone:-In Narayanpur cases related to low density cyclone occurred in some places.

10.2 Need for Disaster Management

Data on disaster occurrence, its effect upon people and its cost to countries, are primary inputs to analyse the temporal and geographical trends in disaster impact. Disaster losses, provide the basis for identifying where, and to what extent, the potentially negative outcomes embedded in the concept of risk is realized. They help to understand where, and to whom, disaster risk becomes impact. They also provide the basis for risk assessment processes, a departing point for the application of disaster reduction measures.

Development cannot be sustainable unless disaster mitigation is built into development process. Investments in mitigation are more cost effective than expenditure on relief and rehabilitation. Prevention and mitigation contribute to lasting improvement in safety and are essential to the integrated disaster management system. Disaster response alone is not sufficient as it yields only temporary results at a very high cost. So, emphasis must be on Disaster prevention, mitigation and preparedness, which help in achieving objectivity of vulnerability reduction.

10.3 Importance of Putting Disaster Management Plan in Place :-

Disasters are events that have a huge impact on humans and/or the environment. Disasters require Government intervention. They are not always unpredictable. Floods take place in valleys and flood plains, droughts in areas with unstable and low rainfall, and oil spills happen in shipping lanes. This predictability provides opportunities to plan for, prevent and to lessen the impact of disasters.

Disasters arise from both natural and human causes, and the responses needed could stretch community and government capacity to the limit. Disasters are inevitable although we do not always know when and where they will happen. But their worst effects can be partially or completely prevented by preparation, early warning, and swift, decisive responses.

Disaster management aims to reduce the occurrence of disasters and to reduce the impact of those that cannot be prevented. The Government White paper and Act on Disaster Management define the roles of Local Authorities as well as Provincial and National government in disaster management.

North East Region has been vulnerable to many natural and manmade disasters in the past. We can notice that most of the disasters have occurred within the last two decades, and the frequency, intensity and magnitude of the disasters are ever increasing.

Plan Objectives:-

The objectives of the Disaster Management Plan are:

- Disaster management in the routine affairs of the office
- To provide technical and humanitarian assistance during disaster
- Prompt and effective discharge of office responsibilities during disaster situations
- Ensuring safety of office infrastructure, human resource and other assets
- Ensuring safety of the beneficiaries and others
- Speedy restoration after disaster impact
- To conduct trainings and capacity building for effective prevention, mitigation and response for disasters.

- To undertake information, education and communication activities to create awareness among the communities and the general public.

10.4 Likely geographical extent and magnitude / severity:-

1. The Master Plan area is situated on both flat land and marshy areas. Hence, Narayanpur is severely prone to flood. Moreover, some parts of Narayanpur is located in very low lying area with poor drainage system with unplanned development, so there are every chances of flash flood due to heavy rainfall. Such flash floods have been experienced during last five years.
2. Assam as a whole is within the Zone V of earthquake zone. Especially Narayanpur has witnessed a devastating earthquake in 1950. So, it can be said that geographically and geologically Narayanpur is situated in a very hazards prone zone.
3. Chances of Landslide are comparatively less in this region. But fire can broke out in the congested residential and commercial areas, market of the town anytime during lean season. So is the risk of epidemic in the slum/basti areas. The region has faced cyclones several times in the past. Road accident can occur at any time.

10.5 Disaster Management Cycle

In multi-hazard response plan, the disaster management cycle has a significant role to play. The four stages of disaster cycle have their own importance in terms of their implementation during, after and before the occurrence of any disaster.

Pre disaster activities

1. Policy development and National, State, district, local level disaster organization formation
2. Vulnerability and capacity assessment.
3. Prevention and mitigation
4. Preparedness, planning and training



During Emergency activities

1. Warning (beginning before the actual event)
2. Evacuation, search and rescue
3. Emergency assistance (relief) – food, water, shelter, medical aid

Post disaster activities

1. Repair and restoration of life lines (power, telecommunications, water transportation)
2. Reconstruction and rehabilitation.



Plan Implementation:-**1. Zoning plan :-**

Zoning is an essential part of overall planning which consists of proper use of available land resources per suitability. Zoning defines as the use, height, size, density of any structure to be built on any particular land. Zoning regulations play a vital a role in controlling and promoting urban development on deserved uses. It is an integral part of any Master plan, which has been used to control development of urban areas, on an orderly manner.

2. Plan implementation: -

Narayanpur Master Plan contains plans and policies for the improvement and development of specific areas with a plan period up to the year 2041. For proper implementation of the plan, preparation of development schemes in conformity with the Master Plan area is very essential.

The implementation of Master Plan will be carried out under the provisions of the Assam Town and Country Planning Act, 1959 as amended from time to time. Development schemes will be implemented in a phased manner in order of priority. Further, proposal will have to be revised from time to time as per changing needs and implementation should be done accordingly.

3. Public Participation:-

For successful implementation of the proposal of Master Plan, public participation is very much essential. No plan can achieve it deserved goal unless it is supported by public in general. Thus, public consciousness is necessary to ensure proper implementation of plan to achieve development with healthy environment. Citizens play a major role in the process of physical development of any area in the form of executing construction work, renovation of existing structure and development of land for various uses by their participation. It is expected that the people of Narayanpur area will extend full-co-operation and active- participation for successful implementation of the Master Plan.

4. Conclusions:-

A healthy planned development always stimulates the generation of many activities by becoming a centre of administration and containing many function of economic, social, and cultural importance. Since, lack of planning in physical development and enforcement of development controls leads to various problems, hence each city/town requires a Master Plan. Narayanpur Master Plan is basic guidelines for orderly development of Narayanpur and surrounding areas as a growing urban centre. After analysing the deficiencies and needs of the plan areas, it is an effort to draw up a list of priorities and opportunities for future development needs of planning area. Only moderate level of facilities has been proposed in this plan due to non-availability of desired and feasible land resources.

Further, final Uniform Zoning Regulations approved by government of Assam, vide Govt. notification, No.TCP 31/200/54 dtd the 12th June 2000 , applicable for all towns except Guwahati and the Assam Building Construction (Regulation) Act, 2010 and The Assam Unified Building Construction (Regulation) Byelaws, 2022 will be applicable to Narayanpur Master Plan area also.

